

Amendments to the Claims

Claims 1-10 (Canceled)

11. **(Currently amended)** A bearing device comprising:
a first bearing having a first retainer with a center axis along a bearing center axis; and
a second bearing having a second retainer with a center axis along said bearing center axis;
wherein said first and second bearings are arranged one upon another in an axial direction along said bearing center axis;
wherein a plurality of first grooves are provided at an outer periphery of said first retainer and are arranged to have balls disposed therein, respectively;
wherein a plurality of second grooves are provided at an outer periphery of said second retainer and are arranged to have balls disposed therein, respectively;
wherein said first bearing includes a first inner ring to support inner sides of the first balls, and a first outer ring to support outer sides of the first balls;
wherein said second bearing includes a second inner ring to support inner sides of the second balls, and a second outer ring to support outer sides of the second balls;
wherein said first and second inner rings are separate and discrete members;
wherein said first and second outer rings are separate and discrete members;
wherein said plurality of first grooves is constituted by N first grooves, and said plurality of second grooves is constituted by N second grooves;
wherein said first grooves, when viewed along a direction of said bearing center axis, are circumferentially angularly spaced apart by angular intervals of $360/N$ degrees;
wherein said second grooves, when viewed along the direction of said bearing center axis, are circumferentially angularly spaced apart by angular intervals of $360/N$ degrees; and
wherein said first and second grooves, when viewed together along the direction of said bearing center axis, are circumferentially angularly spaced apart by angular intervals of $360/(2N)$ degrees, and such that first radial line segments respectively connecting said center axis of said

first retainer with centers of said first grooves do not overlap with second radial line segments respectively connecting said center axis of said second retainer with centers of said second grooves.

12. **(Previously presented)** The bearing device of claim 11, wherein said first retainer and said second retainer are integrated.

13. **(Previously presented)** The bearing device of claim 11, wherein
N = 3.

14. **(Currently amended)** A bearing device comprising:
a first bearing having a first retainer with a center axis along a bearing center axis;
a second bearing having a second retainer with a center axis along said bearing center axis; and
wherein said first and second bearings are arranged one upon another in an axial direction along said bearing center axis;
wherein a plurality of first grooves are provided at an outer periphery of said first retainer;
wherein a plurality of second grooves are provided at an outer periphery of said second retainer;
wherein first balls are disposed in said first ~~and second~~ grooves, respectively;
wherein second balls are disposed in said second grooves, respectively;
wherein said first bearing includes a first inner ring to support inner sides of the first balls, and a first outer ring to support outer sides of the first balls;
wherein said second bearing includes a second inner ring to support inner sides of the second balls, and a second outer ring to support outer sides of the second balls;
wherein said first and second inner rings are separate and discrete members;
wherein said first and second outer rings are separate and discrete members;

wherein an inner sleeve is provided and supports ~~an inner ring for said balls disposed in said first grooves of said first retainer and said balls disposed in said second grooves of said second retainer~~ said first and second inner rings;

wherein an outer sleeve is provided and supports ~~an outer ring for said balls disposed in said first grooves of said first retainer and said balls disposed in said second grooves of said second retainer~~ said first and second outer rings;

wherein said plurality of first grooves is constituted by N first grooves, and said plurality of second grooves is constituted by N second grooves;

wherein said first grooves, when viewed along a direction of said bearing center axis, are circumferentially angularly spaced apart by angular intervals of $360/N$ degrees;

wherein said second grooves, when viewed along the direction of said bearing center axis, are circumferentially angularly spaced apart by angular intervals of $360/N$ degrees; and

wherein said first and second grooves, when viewed together along the direction of said bearing center axis, are circumferentially angularly spaced apart by angular intervals of $360/(2N)$ degrees, and such that first radial line segments respectively connecting said center axis of said first retainer with centers of said first grooves do not overlap with second radial line segments respectively connecting said center axis of said second retainer with centers of said second grooves.

15. **(Currently amended)** The bearing device of claim 14, wherein said first inner ring has a recessed groove at an outer side thereof, said recessed groove of said first inner ring being a curved recess whose radius of curvature, at locations corresponding to locations of said first balls, is slightly larger than a radius of curvature of each of said first balls; and

said first outer ring has a recessed groove at an inner side thereof, said recessed groove of said first outer ring being a curved recess whose radius of curvature, at locations corresponding to locations of said first balls, is slightly larger than a radius of curvature of each of said first balls;

said second inner ring has a recessed groove at an outer side thereof, said recessed groove of said second inner ring being a curved recess whose radius of curvature, at locations corresponding to locations of said second balls, is slightly larger than a radius of curvature of each of said second balls; and

said second outer ring has a recessed groove at an inner side thereof, said recessed groove of said second outer ring being a curved recess whose radius of curvature, at locations corresponding to locations of said second balls, is slightly larger than a radius of curvature of each of said second balls.

16. **(Currently amended)** The bearing device of claim 14, wherein

said first inner ring has a recessed groove at an outer side thereof, said recessed groove of said first inner ring being an outer peripheral groove whose radius of curvature is slightly larger than a radius of curvature of each of said first balls; **and**

said first outer ring has a recessed groove at an inner side thereof, said recessed groove of said first outer ring being an outer peripheral groove whose radius of curvature is slightly larger than a radius of curvature of each of said first balls;

said second inner ring has a recessed groove at an outer side thereof, said recessed groove of said second inner ring being an outer peripheral groove whose radius of curvature is slightly larger than a radius of curvature of each of said second balls; and

said second outer ring has a recessed groove at an inner side thereof, said recessed groove of said second outer ring being an outer peripheral groove whose radius of curvature is slightly larger than a radius of curvature of each of said second balls.

17. **(Currently amended)** A head support device comprising

a support arm having a slider and a voice coil coupled thereto, and

a bearing device to rotatably support said support arm, said bearing device comprising:

a first bearing having a first retainer with a center axis along a bearing center axis;

a second bearing having a second retainer with a center axis along said bearing center axis; and

wherein said first and second bearings are arranged one upon another in an axial direction along said bearing center axis;

wherein a plurality of first grooves are provided at an outer periphery of said first retainer;

wherein a plurality of second grooves are provided at an outer periphery of said second retainer;

wherein first balls are disposed in said first ~~and second~~ grooves, respectively;

wherein second balls are disposed in said second grooves, respectively;

wherein said first bearing includes a first inner ring to support inner sides of the first balls, and a first outer ring to support outer sides of the first balls;

wherein said second bearing includes a second inner ring to support inner sides of the second balls, and a second outer ring to support outer sides of the second balls;

wherein said first and second inner rings are separate and discrete members;

wherein said first and second outer rings are separate and discrete members;

wherein said plurality of first grooves is constituted by N first grooves, and said plurality of second grooves is constituted by N second grooves;

wherein said first grooves, when viewed along a direction of said bearing center axis, are circumferentially angularly spaced apart by angular intervals of $360/N$ degrees;

wherein said second grooves, when viewed along the direction of said bearing center axis, are circumferentially angularly spaced apart by angular intervals of $360/N$ degrees; and

wherein said first and second grooves, when viewed together along the direction of said bearing center axis, are circumferentially angularly spaced apart by angular intervals of $360/(2N)$ degrees, and such that first radial line segments respectively connecting said center axis of said first retainer with centers of said first grooves do not overlap with second radial line segments respectively connecting said center axis of said second retainer with centers of said second grooves.

18. **(Previously presented)** The head support device of claim 17, wherein said slider and said voice coil are arranged at positions spaced apart from each other with said bearing device therebetween.

19. **(Currently amended)** A recording/reproducing device comprising
a recording medium,
a rotation driving device arranged to rotationally drive said recording medium,
a support arm having a slider and a voice coil coupled thereto, and a head for reading information stored in said recording medium, and
a head support device for driving said support arm, wherein said head support device comprises a bearing device, said bearing device comprising:
a first bearing having a first retainer with a center axis along a bearing center axis; and
a second bearing having a second retainer with a center axis along said bearing center axis;
wherein said first and second bearings are arranged one upon another in an axial direction along said bearing center axis;
wherein a plurality of first grooves are provided at an outer periphery of said first retainer;
wherein a plurality of second grooves are provided at an outer periphery of said second retainer;
wherein first balls are disposed in said first ~~and second~~ grooves, respectively;
wherein second balls are disposed in said second grooves, respectively;
wherein said first bearing includes a first inner ring to support inner sides of the first balls, and a first outer ring to support outer sides of the first balls;
wherein said second bearing includes a second inner ring to support inner sides of the second balls, and a second outer ring to support outer sides of the second balls;
wherein said first and second inner rings are separate and discrete members;
wherein said first and second outer rings are separate and discrete members;

wherein said plurality of first grooves is constituted by N first grooves, and said plurality of second grooves is constituted by N second grooves;

wherein said first grooves, when viewed along a direction of said bearing center axis, are circumferentially angularly spaced apart by angular intervals of $360/N$ degrees;

wherein said second grooves, when viewed along the direction of said bearing center axis, are circumferentially angularly spaced apart by angular intervals of $360/N$ degrees; and

wherein said first and second grooves, when viewed together along the direction of said bearing center axis, are circumferentially angularly spaced apart by angular intervals of $360/(2N)$ degrees, and such that first radial line segments respectively connecting said center axis of said first retainer with centers of said first grooves do not overlap with second radial line segments respectively connecting said center axis of said second retainer with centers of said second grooves.